

Pre-regulatory Workshop: OEHHA's Green Chemistry Regulation

August 23, 2010

Office of Environmental Health Hazard Assessment
Cal/EPA Headquarters



Agenda

- SB 509 mandate
- Regulation overview
- Hazard Trait Categories
- Methodologies
- Next Steps
- Discussion

SB 509 Mandate

“On or before January 1, 2011, the office shall evaluate and specify the hazard traits and environmental and toxicological end-points and any other relevant data that are to be included in the clearinghouse. The office shall conduct this evaluation in consultation with the department and all other appropriate state agencies, after one or more public workshops, and an opportunity for all interested parties to comment.”

Pre-Draft Activities

- Three public workshops
 - January 29, 2009
 - March 15-16, 2010
 - May 10-11, 2010
- Green Ribbon Science Panel consultations
- Industry and NGO scientists meetings on methods for screening of hazards

Overview of Draft Regulation

- Regulation proposes
 - Four general types of hazard traits
 - For **each** toxicological and environmental hazard trait, two classes – Class One and Class Two
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- Regulation Outline
 - Preamble
 - Definitions
 - Specific Hazard Traits, Endpoints and Other Relevant Data
 - Toxicological
 - Environmental
 - Exposure Potential
 - Physical
 - Sources and Methodologies for Identifying Whether a Chemical has a Hazard Trait

Hazard Traits

Toxicological

- Carcinogenicity
- Cardiovascular Toxicity
- Dermatotoxicity
- Developmental Toxicity
- Endocrine Toxicity
- Epigenetic Toxicity
- Genotoxicity
- Immunotoxicity
- Hematotoxicity
- Hepatotoxicity and Digestive System Toxicity
- Musculoskeletal Toxicity
- Nephrotoxicity and Other Urinary System Toxicity
- Neurotoxicity
- Ocular Toxicity
- Ototoxicity
- Reactivity in Biological Systems
- Reproductive Toxicity
- Respiratory Toxicity

Environmental

- Eutrophication
- Loss of Genetic Diversity, including Biodiversity
- Non-Target Phytotoxicity
- Wildlife Developmental Impairment
- Wildlife Growth Impairment
- Wildlife Reproductive Impairment
- Wildlife Survival Impairment

Exposure Potential

- Ambient Ozone Formation
- Bioaccumulation
- Environmental Persistence
- Global Warming Potential
- Lactational or Transplacental Transfer
- Mobility in Environmental Media
- Particle Size or Fiber Dimension
- Persistence in Biota
- Stratospheric Ozone Depletion Potential
- Toxic Environmental Transformation

Physical

- Explosivity
- Flammability
- Nanomaterial Hazard
- Oxidation
- Self-Reactive Substances and Mixtures
- Radioactivity

Identifying whether a Chemical Has a Hazard Trait

- **Carcinogenicity and Developmental and Reproductive Toxicity**
 - Class One (strong evidence) based on assessment by authoritative body
 - Class Two (suggestive evidence) based on weight of evidence determination:
 - By an authoritative organization
 - At DTSC request, by OEHHA
- **Organ System and Environmental Hazard Traits**
 - Class One (strong evidence) based on weight of evidence determination:
 - By an authoritative organization
 - At DTSC request, by OEHHA
 - Class Two (suggestive evidence) based on weight of evidence determination:
 - By an authoritative organization
 - At DTSC request, by OEHHA

Next Steps

- Comment period ends September 13th
- OAL process begins late September/early October
 - peer review
- Adopt regulation by end of 2010

Written Comments on Pre-regulatory Draft

- Email by September 13 to:
fkammerer@oehha.ca.gov

OR

- Send by September 13 to:
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DISCUSSION

(during workshop
email comments or questions to
coastalrm@calepa.ca.gov)